

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 October 2005 (13.10.2005)

PCT

(10) International Publication Number
WO 2005/095917 A2

(51) International Patent Classification⁷: **G01M 11/00**

(21) International Application Number:
PCT/GB2005/001269

(22) International Filing Date: 31 March 2005 (31.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0407386.2 31 March 2004 (31.03.2004) GB

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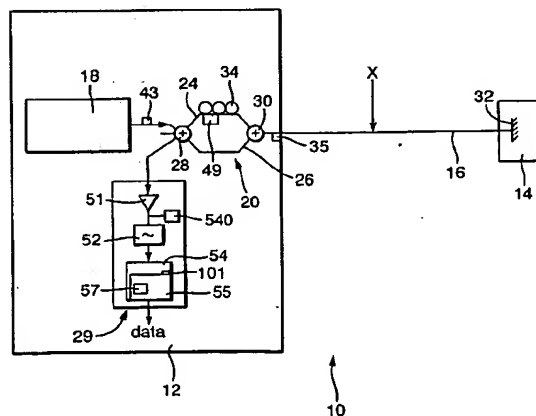
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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(54) Title: **EVALUATING THE POSITION OF A DISTURBANCE**



(57) Abstract: The present invention relates to a method of and apparatus for evaluating the position of a disturbance on an optical link, in particular where the disturbance is a time-varying disturbance. An optical time domain reflectometry technique in which a series of low coherence test pulses is launched into an optical link, and the backscattered return signal is monitored. The test pulses pass through an unbalanced Mach Zehnder interferometer with the result that for each test pulse, a pair of time-displaced pulse copies is launched onto the link. The backscattered return signal is passed through the same interferometer, which causes the pulse copies of each pair to become realigned and to interfere with one another. A time-varying disturbance is likely to affect each pulse copy of a pair differently. As a result, an abnormality such as a step is likely occur in the backscattered signal. From the time position of an abnormality, the distance of the disturbance responsible is evaluated.



Published:

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